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San Antonio Radio Club

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BULL-ETIN

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Meets first and third Fridays at 7:30 P.M. at the Red Cross Building, 90 Brees St. A L L who have an interest in amateur radio are cordially invited to attend.

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WRIGHT WORD

W5SC/5 FIELD DAY REPORT - 1976

By K5CDT Jim Wright

Silence has returned to the thickets of W. W. McAllister Park, the roar of the generators and the heat of battle with the QRM are only memories, and the crawling and flying creatures are in search of new prey. The rigs, antennas and generators have been returned to their normal operating positions or stored away awaiting next year or the call to serve in the event of an emergency. Field Day for 1976 has come to an end.

At this writing, the scores have not been assembled; however, it appears that our tallies will surpass anything in the past. A station-by-station summary of scores will appear in the next issue of the BULL-ETIN.

This year we operated thirteen different stations from 3.5 to 148 megahertz. Because of the number of participants and because this writer was obligated to operate or log as much as possible, it is impossible to recognize individually all of those who contributed to the Field Day effort; however, it is important to attempt it anyway.

The 80-Meter CW station was operated by a group headed up by some members of the DX Amigos. Seen pounding brass or logging were Bill K5ETJ, Bruce W5OSJ, Bill K5TSR. Corky WB5CIT and Mary Reeh.

The 75-Meter SSB station was manned by Bob K5UWS, W5ZPV and Ivan WA5RNV.

Participating in the operation of the 40-Meter SSB and 15-Meter CW stations were JD WB5MXJ, Carl WA5LIX, Harry WN5TFC, Chuck WB5FWI, Rick WB5OBG, Carl WN5TFB, Clarke WB5SOC, Tanya WB5MXK, Walt WB5FNZ and Mike WB5FUS, with great assistance and support from the XYL's.

The 40-Meter CW and 2-Meter SSB stations were set up and operated by John WB5GUV, Woody K5HLP, George K5LAK and his soon-to-be-licensed XYL Lena, Eric WN5RCY, Gary WN5RCZ, Wayne WN5OBV, Hank WN5TOV and soon-to-be-novice, Scot Renwick. This group also attempted contacts using OSCAR.

The novices indicated a much improved score this year. Seen in their area were Jim WN5NOR, Bob WN5MCJ, Tom WN5MFO, Barney WN5NRH, Wayne WN5QBV, John WN5NUK,

(Continued on Page 3.)

xxxx

Technical Topics

By W5LFM CAL GRAF

This past April a radio and communications theory expert died in Harlingen, Tex. Harry Nyquist, renowned for his theoretical studies and practical inventions in the field of communications, died at the age of 87. Many of his inventions and theories are widely accepted as fundamental to voice, picture and data transmission and his work touched almost everyone's life. Nyquist was awarded 138 patents during his 37 years of employment with the Bell System. He joined the American Telegraph Co. in 1917 after receiving a PhD in Physics from Yale University.

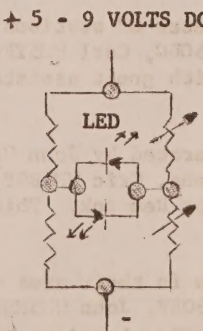
His discovery of the conditions necessary to keep feedback circuits stable, called the Nyquist Criterion, brought him widespread acclaim. He was also the first to make a quantitative explanation of thermal noise. We all know this as white noise or receiver hiss and VHF hams have spent hours listening to Nyquist hiss at poor noise figures. Through theoretical analysis he also determined the minimum band of frequencies required to transmit various kinds of communications signals. These studies laid the foundation for modern information theory and data transmission. The Swedish-born scientist also invented a method of transmission used in TV broadcasting today and discovered a way to correct what is known as delay distortion of TV images. Nyquist, indeed, was a busy man in his lifetime.

Most of the SARC members who attend club meetings have heard sounds and hum which the Humbug and a magnetic antenna probe can produce. While I had nothing to do with its development, there are now several companies which offer devices which are short-circuit locators. They operate on the principle that a current injected into a bus that would normally provide no sink creates a disturbance in the near magnetic field surrounding any current path. This permits tracing the exact path of current flow by by electronically monitoring these near-field anomalies. The testers have a current sensitivity to 1 ma. and offer no hazard to board-mounted components. So instead of using the Humbug to locate buried water pipe at a great distance, this technique locates a shorted circuit path by the increased magnetic field a short causes. Humbug!

If you like to experiment with light-sensitive resistors (photocells) and LEDs, try building the LED light bridge shown in the drawing. As shown, the circuit becomes a "photo conductive bridge-connected light meter using LEDs." Circuit operation is very simple. Point the photocell at a light of a certain level (such as out a window or near a lamp.) One of the LEDs will light. Adjust the 1 meg pot until both of the LEDs are out. This means the bridge is balanced and there is no current flowing through the LED circuit. Now when the photocell is pointed in the direction of a <u>brighter</u> light, one of the LEDs will light; the other LED will remain off. When the photocell is again returned to the same position, both of the LEDs will be off. Now when you move the photocell in the direction of a <u>darker</u> source of light (or no light at all), the other LED will come on; the other LED remaining out.

The circuit is insensitive to supply voltage and will operate from about 5 to 9 volts dc. It will also operate over a wide light intensity range but is more easily adjusted over the lower light ranges rather than bright sunlight. The circuit can be adapted to function as sorter, counter, intrusion alarm, light level sensor, position sensor, and edge monitoring (edge of a piece of paper or box). With optical couplers replacing the LEDs, the circuit will provide tracking information for a light tracker. All of the components can be found at Radio Shack, where you can find a bargain buy of LEDs (several types) for $2.99. Good luck for now.

73, W5LFM, Cal Graf.



LIGHT LEVEL SENSOR

CONGRESS OF THE ARARM

The VII National Congress of the Ararm (Associacion de Radioaficionados de la Replublica Mexicana) will be held in Piedras Negras, Mexico, 16, 17 July. During the event they will have conferences, lunches, tours, dinners, and a dance on Saturday night, with a Tombloa.

Registration fee is $20.00, which includes lunch and dinner for Friday 16 and Saturday 17 and the dance. Tickets for the Tombola are available separately. For more information write Dr. Sigifredo Salinas, Apdo, No. 53-B, Piedras Negras, Coahuila, Mexico.

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SAN ANTONIO RADIO CLUB CHRISTMAS PARTY IS DECEMBER 4--PLAN NOW TO ATTEND ! ! !

FIELD DAY Report continued from Page 1.

Chuck WH6IMI/5, Mary WH6IPR/5, Joe WN5PYO, Jon WN5SZH, Dave WN5NLT, Kellie WN5MZT, Bob Davis (still waiting),and offering experience was Mike WB5OKK.

Once again the QCWA answered the call to carry the load at the 20-Meter station under the big oak tree. Some of those involved were Gene W5EJT, Roy W5EYB, Les W5BE, Dean W5BGE, Jimmy W5JC, Bob K9ING/5, Derwin W5LUU, Pappy W5UB and Bernard WN5MLC

The Alamo YL's, sporting potted plants and a newly-painted tower, scored many points on 20-Meter SSB. Participating were Beverly WA5CKA, Barbara WB5GAH, Peggy WA5GZO, Nancy WB5MRQ, Ruth K5OPT, Aileen K5OPV, Katherine K5TSZ and Inez W5WXT. OM's assisting were Don K5ALK, Gene W5EJT and Larry WA5PAF.

Using a new aluminum tower and a monoband beam this year, 15-Meter SSB was conquered by Robert WA5JDU, George WB5LDN, Chris WN5LKQ, Jim K5UKN, Duke K5ZJA, Bill WA5QHG, Bob Osborn, Bill Brandhorst and David Simon.

Because of an unanticipated medical problem Dick WA5CXY was unable to manage the 10-Meter SSB station, so with one evening's preparation, your club's president gathered up a 25-foot mast, an inverted vee and his trusty FT-101EE and put W5SC/5 on 10. Gale WB5MMI and Jon WN5SZH were invaluable at this station. Paul K5PPV, Curly WA5JTU and Bob WN5MCJ assisted in packing everything away at the end.

The San Antonio Repeater Organization established a 2-Meter FM station. Among those sharing the duties were Bob W5PKK, Bill WB5SXG, Clarke WB5SOC, Mike WB5FUS, and Mike Ealy.

SMIRK really did their thing on 6-Meters with the help of a bood band opening. Those operating were Gene WA5CBT, Tex W5QDB, Ray K5ZMS, Curtis W5PKE and Bob WB5FDT.

Special recognition goes to John WB5GUV, who arranged for the tamales, cold 807's and the barbecue supper; to the San Antonio Repeater Organization, which voted $150 toward Field Day and to Bob WN5MCJ and his breakfast crew consisting of Gale WB5MMI, Bill WA5QNG, Joe WN5PYO, Chris WN5LKQ, John WN5NUK, Mike WB5OKK, Tom WN5MFO and Bob Davis.

All of us owe a particular debt of gratitude to Tom WB5LOR, your 1976 Field Day Chairman, without whom it would have been all but impossible. Corky WB5CIT last yeqr's chairman, shared his experience with Tom and was of great assistance to him.

Finally, to all of those whose names were missed, who provided assistance, and to all of those who made an appearance, we sincerely appreciate your support.

73, Jim Wright K5CDT.

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IVAN WA5RNV IN HOSPITAL

Monday following Field Day, Ivan entered Methodist Hos., suffering from a heart attack. Thursday July 1, he was in Cardiac Care Unit but was to be moved out of CCU. Mrs. Mangold said Ivan would have to stay following week for futher checks.

FROM HR REPORT

PROPOSED TEXAS DEPARTMENT OF HEALTH REGULATIONS limiting RF radiation no longer threaten Amateur licensees thanks to some hard working Texas Amateurs. (Ed. Note: SARC members who were prominent among the hard working Texas Amateurs included: Roy Albright W5EYB, West Gulf ARRL Director, George Muncsh W5VPQ, Dr. Larry Higgins W5QMU, and Dr. David Hunter W5DUU.) An exemption is being added excluding FCC licensed stations from the controls. Congratulations!

CB MARKETERS GOT GOOD NEWS and bad news at the Consumer Electronics Show's CB Radio Conference in Chicago last Monday morning. The good news was FCC Chairman Richard Wiley's flat promise that a 27 MHz channel expansion would be announded in July. How many new channels will be opened up is still under discussion, however, with the present Class C radio control channels probably going to end up in the expansion pot along with 17 more new channels above the present 23 for a total of either 40 or 45.

FCC Cheif Engineer Ray Spence delivered the bad news when he reported on the recent FCC tests of 25 CB transceivers for which type acceptance data had been submitted. Of the 25, Ray said, every one flunked its own specifications with only a few coming close enough for the FCC engineers to give the manufacturers or importers 60 days in which to correct their problems!

Probable result of the tested radios' poor performance will be substantial delays in getting new CB radios into the market place--a problem that can only be compounded by the introduction of new channels. Under the best of conditions, implementation of the channel increase should take six to 12 months. As a result of the FCC's poor findings Ray said the FCC will now require all CB transceivers for type acceptance to be tested by the Commission's laboratory--areas of particular concern are spurious radiation and over modulation capability.

CB allocations in the HF spectrum were proposed to Chairman Wiley in a post seminar session with a number of publication people and CBers--the Chairman gave that idea short shrift with the suggestion that CB was for short range personal communications and those interested in talking over longer distances should go to the trouble of becoming Amateurs!

UNLICENSED 27 MHZ OPERATORS are protected by a legal loophole--the Communications Act of 1934 gives FCC jurisdiction only over licensees. Justice Department is the agency with the power to go after unlicensed operators, but it has neither the tools (as FCC does) nor time to chase down all such violators. This "Catch 22" may change shortly, however--FCC Chairman Wiley said at the CES show in Chicago Monday that there is legislation pending before both houses of Congress that would give the FCC power to prosecute unlicensed operators and confiscate their equipment, and he expects it to become law very quickly.

NEW MULTI-2700 about to be announced by KLM will replace the well-known Multi-2000. The new 2-meter transceiver has a synthesizer with in-line LED display covering 143-149 MHz plus VFO tuning from 144-148, operates AM, FM, SSB and CW. Most unusual of the Multi-2700's many features is for OSCAR users--a 29 MHz receiver with incremental tuning that tracks the 2-meter VFO to provide duplex operation through OSCAR 6 or 7! Price of the new radio is $795. Expects first shipments in August.

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KWM 1--complete with AC power supply, mike, speaker & factory noise blanker--$375.

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D. C. 20554

FCC 76-537
41127

In the Matter of	)	Docket 20282
Amendment of Part 97 of the	)	RM-1016, 1363, 1454,
Commission's Rules concerning	)	1456, 1516, 1521, 1526,
operator classes, privileges,	)	1535, 1568, 1572, 1602,
and requirements in the Ama-	)	1615, 1629, 1633, 1656,
teur Radio Service.	)	1724, 1793, 1805, 1841,
	)	1920, 1947, 1976, 1991,
	)	2030, 2043, 2053, 2149,
	)	2150, 2162, 2166, 2216,
	)	2219, 2256, 2284, 2449.

FIRST REPORT AND ORDER

Adopted: June 9, 1976 Released: June 15, 1976

By the Commission:

1. On December 16, 1974, the Commission released a Notice of Proposed Rule Making in this proceeding which was published in the Federal Register on December 20, 1975, (39-FR44042). Comments were due by June 16, 1975, and reply comments by July 16, 1975. The due dates for both comments and reply comments were extended, and the final cutoff dates were set at July 16, 1975, and September 1, 1975, respectively.

2, The purpose of the Notice was to consolidate into one rulemaking proceeding the many petitions we had received which dealt one way or another with changing the structure of the Amateur Radio Service. We recognized that the requests found in the petitions were often interrelated, and should not be handled on a piecemeal basis. For this reason, we undertook a fundamental review of the entire structure of the Amateur service and proposed various changes in that structure.

3. The major proposed rule changes contained in the Notice were the following:

a) Creation of a 'dual ladder' licensing structure;

b) Creation of a Communicator Class license having no telegraphy privileges or examination requirement;

c) Establishment of new power limits based on transmitter peak envelope power output;

d) New restrictions on licenses obtained by means of volunteer-administered mail examinations;

e) Issuance of lifetime Amateur Extra Class operator licenses; and

f) Modification of the frequencies and modes available to certain license classes.

4. An estimated 4000 comments and reply comments were filed in this Docket. They ranged from postcards to multipage typewritten statements, often with very detailed analyses of our proposals coupled with suggested revisions thereto. All of these comments have been read and carefully considered. Also, in addition to these documents, we have closely examined the results of a poll taken by the American Radio Relay League (ARRL) which elicited responses from many thousand of that organization's members.

5. Because of severe manpower and time restrictions brought about by the recent surge in Citizens Radio Service applications, we are unable at this time to undertake the preparation of a comprehensive Report and Order which would address all of the issues raised in the Notice. We are therefore releasing this First Report and Order in which several matters of importance will be addressed, and we plan to prepare additional Reports and Orders in the future as our workload permits.

6. Firstly, we will address the matter of examinations administered by volunteer examiners. Under the system put forth in the Notice, all licenses obtained in this way, except Novice licenses and licenses granted in those instances where the applicant qualified for a volunteer-administered examination on the basis of a protracted disability which prevented travel to a Commission examination point, were to be non-renewable. Such licenses were to be temporary, and the licensees would have been required to successfully complete a regular Commission-supervised examination in order to remain licensed. This arrangement would have required all presently licensed Technician (C) and Conditional licensees to undergo reexamination by the Commission. Failure to successfully complete the Commission-supervised examination would have meant that the licensee could not have continued to renew his license upon expiration.

7. As one of the broad objectives in this proceeding, we stated in the Notice that we desired to preclude, or at least minimize, any adverse impact upon presently licensed amateurs. The sentiments in the comments overwhelmingly supported this posture, and we continue to believe it to be the only reasonable course of action. Many comments objected to our 'non-renewability' proposal for volunteer-administered examinations as being detrimental to amateur radio in general and excessively burdensome to thousands of licensees who, for valid reasons, did not undertake Commission-supervised examinations.

Moreover, in as much as the Technician Class

license program has always been by Commission intent, based primarily on volunteer-administered examinations, a mass recall of these persons does not now appear equitable. We are in basic agreement with these objections, and have modified our proposal to blunt any ill effects on present licensees. We believe the limited resources available to us can be best utilized elsewhere.

8. However, our experience with the volunteer examination program has shown that it has been abused. Our routine call-in program of Technician (C) and Conditional Class licensees has shown that over 90% of such persons either fail to appear for re-examination, or if they do appear, fail the examination. Such results tend to confirm the suspicion that some such licensees obtained their licenses fraudulently. We have therefore determined to limit the availability of volunteer-administered examinations to the following catagories of applicants:

a) Applicants for the Novice license; and

b) Applicants who show by physician's certification that they are unable to appear at a Commission examination point because of protracted disability preventing travel.

All applications for mail examinations on the basis of a progracted disability should now be sent to the FCC field office nearest the applicant, rather than to the Commission's offices in Gettysburg, Pennsylvania. Such examinations will be conducted by a volunteer examiner selected by the Commission, or by Commission personnel.

9. Persons now holding licenses obtained on the basis of a mail examination will not be adversely affected by this rule change. All such licenses may continue to be renewed, and Rule Section 97.25 is being modified to indicate that examination credit will be given for those elements which were passed without Commission supervision. For instance, a Technician (C) licensee will automatically be given credit for Element 3 should he attempt to obtain a General Class license. He would be required only to pass Element 1(B), the 13 wpm telegraphy test. We believe that this 'grandfather' provision penalizes no one, and will encourage such licensees to upgrade. Upon application for license modification or renewal, all present Conditional Class licensees will be issued General Class licenses, and all Technician (C) licensees will be issued Technician licenses. Henceforth, all applicants passing Elements 1(B) and 3 on a volunteer-administered examination will be issued a General Class license. The Conditional Class will no longer be issued.

10. The elimination of the 175 mile distance eligibility criteria for the Conditional Class (now General Class) license will not, in our view, impose an undue hardship on those persons sincerely interested in obtaining an amateur license. The number of such applications received is now slight, and the enlargement of the Commission's examination schedule for remote points all but eliminates the usefulness of the 175 mile criterion. With respect to the Technician (C) Class license, we do not forsee any significant adverse impact resulting from its elimination. The vast majority of persons seeking that license live within convenient travel distance of a Commission examination point, and our examination policy with respect to the Technician Class is now consistent with our policy governing all license classes except Novice. As proposed, we are also deleting the availability of mail examinations on the basis of eligibility criteria set out in 97.27(c)&(d).

11. A related issue we will address at this time involves the Novice Class license. Many thousands of Novice examinations are given each year, and this has been the gateway to Amateur radio for over half of all present licensees. We believe the experience of taking the Novice test to be very worthwhile, in as much as there is no overlap in the Novice examination questions and the questions found on more advanced examinations. We are therefore amending the Rules to require that all persons entering the Amateur Radio Service, at any level, sucessfully complete examination element 2 in addition to the other examination elements presently required for the license examination being undertaken. We are also at this time deleting the provision in Section 97.9(f) which prohibits the issuance of a Novice Class license to a person who has held within the prior 12 month period any class of Amateur radio license. We believe this provision serves no useful purpose and has prohibited otherwise qualified persons from remaining in Amateur radio.

12. The final matter we will touch on in this First Report and Order involves the privileges available to Technician and Novice Class licensees. Until several years ago, it was permissible for a licensee to hold both the Novice and Technician Classes of license at the same time. Such dual licensing was subsequently prohibited in Section 97.9(f), which states that the Novice Class license may not be concurrently held with any other class of license. We have received several petitions to lift this restriction, and in our Notice we proposed to include Novice Class privileges in the Technician Class license. We are herein adopting that proposal, which was widely supported in the comments. We are also modifying the maximum permissible transmitter power input which Novices, and all other license classes, may utilize when operating on Novice frequencies. We are limiting to 250 watts the maximum power input which may be used by any class of operator transmitting in Novice sub-bands. We are adopting this change for two reasons; firstly, it will mean that a Novice can buy equipment which will be readily useable and practical when he upgrades to General Class and above. Presently, in order to conform to the 75 watt power limit, Novices oftentimes are forced to buy low power transmitters which they find have limited usefulness outside Novice sub-bands; and secondly, we see no reason to permit non-Novices to utilize high

power in a sub-band where such power gives them a significant advantage over a license class which is restricted to that sub-band.

13. In view of the foregoing, we are of the opinion that the amended rules as discussed above are in the public interest, convenience, and necessity. Accordingly, pursuant to authority contained in Section 4(i) and 303 of the Communications Act of 1934, as amended, IT IS ORDERED, that Part 97 of the Commission's Rules IS AMENDED as set forth in the Appendix attached hereto. These amendments become effective July 23, 1976.

FEDERAL COMMUNICATIONS COMMISSION

Vincent J. Mullins
Secretary

Attachment: Appendix

A P P E N D I X

Chapter 1, Part 97 of Title 47 of the Code of Federal Regulations is amended as follows:

1. In Section 97.7, paragraphs (b), (c) and (d) are amended and (e) is added to read as follows:

97.7 Privileges of operator licenses.

* * * * * * *

(b) General Class. All authorized amateur privileges except those exclusive operating privileges which are reserved to the Advanced Class and/or Amateur Extra Class.

(c) Conditional Class. Same privileges as General Class, New Conditional Class licenses will not be issued. Present Conditional Class licensees will be issued General Class licenses at time of renewal or modification.

(d) Technician Class. All authorized amateur privileges on the frequencies 50.1-54 MHz and 145-148 MHz and in the Amateur bands above 220 MHz. Such licenses also carry the full privileges of the Novice Class license.

(e) Novice Class. Radiotelegraphy in the frequency bands 3700-3750 kHz,7100-7150 kHz (7050-7075 kHz when the terrestrial station location is not within Region 2), 21,100-21,200 kHz & 28,100-28,200 kHz, using only Type A1 emission.

2. Section 97.9 is amended to read as follows:

97.9 Eligibility for new operator license.

Anyone except a representative of a foreign government is eligible for an amateur operator license.

3. Section 97.11(b) is amended to read as follows:

97.11 Application for operator license

* * * * * * *

(b) An application (FCC Form 610) for a new operator license, including an application for change in operating privileges, which requests an examination supervised by a volunteer examiner under the provisions of 97.27, shall be submitted to the FCC field office nearest the applicant. Applications for the Novice Class license should be sent to the Commission's offices in Gettysburg, Pa., 17325. All applications should be accompanied by any necessary filing fee.

* * * * * * *

4. Section 97.23 is amended to read as follows:

97.23 Examination requirements.

Applicants for operator licenses will be required to pass the following examination elements:

(a) Amateur Extra Class: Elements 1(C), 2, 3, 4(A) and 4(B);

(b) Advanced Class: Elements 1(B), 2, 3, and 4(A);

(c) General Class: Elements 1(B), 2, and 3;

(d) Technician Class: Elements 1(A), 2, and 3;

(e) Novice Class: Elements 1(A) and 2.

5. Section 97.25 (a) is amended to read as follows:

97.25 Examination credit.

(a) An applicant for a higher class of amateur operator license who holds any valid amateur license will be required to pass only those elements of the higher class examination that are not included in the examination for the amateur license held.

* * * * * * *

6. Section 97.27 is retitled and amended to read as follows:

97.27 Mail examinations for applicants unable to travel.

The Commission may permit the examinations for an Amateur Extra, Advanced, General,

or Technician Class license to be administered at a location other than a Commission examination point by an examiner chosen by the Commission when it is shown by physician's certification that the applicant is unable to appear at a regular Commission examination point because of a protracted disability preventing travel.

7. Section 97.28 is retitled and amended to read as follows:

97.28 Manner of conducting examinations.

(a) Except as provided by 97.27, all examinations for Amateur Extra, Advanced, General, and Technician Class operator licenses will be conducted by authorized Commision personnel or representatives at locations and times specified by the Commission. Examination elements given under the provisions of 97.27 will be administered by an examiner selected by the Commission. All applications for consideration of eligibility under 97.27 should be filed on FCC Form 610, and should be sent to the FCC field office nearest the applicant. (A list of these offices appears in 0.121 of the Commission's Rules and can be obtained from the Regional Services Division, Field Operation Bureau, FCC, Washington, D. C., 20554, or any field office.)

(b) Unless otherwise prescribed by the Commission, examinations for the Novice Class license will be conducted and supervised by a volunteer examiner selected by the applicant. The volunteer examiner shall be at least 21 years of age, shall be unrelated to the applicant, and shall be the holder of an Amateur Extra, Advanced, or General Class operator license. The written portion of the Novice examination, Element 2, shall be obtained, administered, and submitted in accordance with the following procedure:

(1) Within 10 days after successfully completing telegraphy examination element 1(A), an applicant shall submit an application (FCC Form 610) to the Commission's office in Gettysburg, Pennsylvania 17325. The application shall include a written request from the volunteer examiner for the examination papers for Element 2. The examiner's written request shall include (i) the names and permanent addresses of the examiner and the applicant, (ii) a description of the examiner's qualifications to administer the examination, (iii) the examiner's statement that the applicant has passed telegraphy element 1(A) under his supervision within the 10 days prior to submission of the request, and (iv) the examiner's written signature. Examination papers will be forwarded only to the volunteer examiner.

(2) The volunteer examiner shall be responsible for the proper conduct and necessary supervision of the examination. Administration of the examination shall be in accordance with the instructions included with the examination papers.

(3) The examination papers, either completed or unopened in the event the examination is not taken, shall be returned by the volunteer examiner to the Commission's offices in Gettysburg, Pa., no later than 30 days after the date the papers are mailed by the Commission (the date of mailing is normally stamped by the Commission on the outside of the examination envelope).

(c) The code test required of an applicant for an amateur radio operator license, in accordance with the provisions of 97.21 and 97.23 shall determine the applicant's ability to transmit by hand key (straight key or, if supplied by the applicant, any other type of hand operated key such as a semi-automatic or electronic key, but not a keyboard keyer) and to receive by ear, in plain language, messages in the International Morse Code at not less than the prescribed speed during a five minute test period. Each five characters shall be counted as one word. Each punctuation mark and numeral shall be counted as two characters.

(d) All written portions of the examinations for amateur operator privileges shall be completed by the applicant in legible handwriting or hand printing. Whenever applicant's signature is required, his normal signature shall be used. Applicants unable to comply with these requirements, because of physical disability, may dictate their answers to the examination questions and the receiving code test. If the examination or any part thereof is dictated, the examiner shall certify the nature of the applicant's disability and the name and address of the person(s) taking and transcribing the applicant's dictation.

97.29 (deleted) and (reserved)

8. Section 97.29 is deleted and redesignated as reserved.

9. Section 97.31(a) is amended to read as follows:

97.31 Grading of examinations.

(a) Code tests for sending and receiving are graded separately.

* * * * * * *

10. Section 97.33 is amended to read as follows:

97.33 Eligibility for re-examination.

An applicant who fails a written examination for an amateur radio operator license may not take another written examination for the same or higher class license within 30 days.

Section 97.35 (deleted)

11. Section 97.35 is deleted.

12. In Section 97.67 paragraph (a) is amended and (d) is added to read as follows:

97.67 Maximum authorized power.

(a) Except for power restrictions as set forth in 97.61 and paragraph (d) below each amateur transmitter may be operated with a power input not exceeding one kilowatt to the plate circuit of the final amplifier stage of an amplifier oscillator transmitter or to the plate circuit of an oscillator transmitter. An amateur transmitter operating with a power input exceeding 900 watts to the plate circuit shall provide means for accurately measuring the plate power input to the vacuum tube or tubes supplying power to the antenna.

* * * * * * *

(d) In the frequency bands 3700-3750 kHz, 7100-7150 kHz (7050-7075 kHz when the terrestrial location of the station is not within Region 2) 21,100-21,200 kHz, and 28,100-28,200 kHz, the maximum plate input power which may be utilized is 250 watts.

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ARRL SUMMARY OF DOCKET 20282

1. Full Novice privileges for Technician Class licensees.
2. A Novice reaching the end of his license term can retest for a new Novice immediately; the one-year wait is discontinued.
3. Novices may run 250 watts d.c. power input.
4. All licensees using the Novice segments of the bands are also limited to 250 watts.
5. Full credit will be granted for examination elements completed by mail; e.g., Conditionals are "grandfathered" to General, Technicians C to Technician.
6. Element 2, the Novice written test, will be a part of all exams.
7. The number of distinct license classes is reduced from 10 to five by this action.
8. The future availability of mail exams is limited to Novices only, except in cases of protracted physical disability.

These changes will be effective July 23, 1976.

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PREVIEW OF SCHEDULED CONVENTIONS

ARRL 1976 NATIONAL CONVENTION, July 16, 17, 18, Denver Hilton, Denver Colorado. For info write: 1976 ARRL National Convention, 1364 East Center Avenue, Aurora, Colorado, 80012.

TEXAS VHF-FM SOCIETY SUMMER CONVENTION, Aug. 6, 7, 8, Austin Tx. Harry Dannals W2TUK, President of ARRL, will be featured speaker.

QCWA NATIONAL CONVENTION, Oct. 8, 9, 10, Allen Park Inn, For info write: Monty Montemayor W5YZ, 9258 Theyson, Houston, TX. 77055.

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SARC AUGUST PROGRAM ANNOUNCED

Dr. Larry Higgings W5QMU will present the August program on the third Friday. His subject will be "The Amateur's World of First Aid." Larry will tell of treatments and cures for common household accidents radio related and not. Come out and be prepared, just in case. de George WB5LDN

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FOR SALE--Drake TR-3 with AC mobile power supply. Contact Bill WA5OJC, 684-1200.

FOR SALE--AX 190 SS Alied Rcvr, 80--10; communications speaker; 8 ohm padded headset; Allied SWR meter; assorted QSTs, 73 to 76; ARRL books; Allied code tape, 5-15; 100 ft. coax RG58/connections; antenna changeover relay; Best offer. Bruce Weinstein, 341-8766.

FOR SALE--Yaeseeu 101 EE xcvr, 160-10. Ext. VFO, FV 101 B , speaker/fone patch, Spectronics digital display, 6 mo. old--Best Offer. Bill K5ETJ 4946850

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FROM HR REPORT

AMATEUR LICENSING BY FCC has been running very consistently at 10-11 weeks for most recipients, according to responses to HR REPORT's recent request and that figure has even been shaved a bit in the past week or so. The delay between computer license issurance and an actual receipt runs 7-10 days. Anyone who has had an application for renewal, upgrade or other "standard" action unanswered for 12 weeks or more should write the Amateur and Citizens Division, FCC, 2025 M Street NW, Washington, DC 20554 with complete details and ask for a followup--you've almost certainly got a problem. Not all the hangups are FCC's, however, with a surprising number of licenses returned by the post office as "undeliverable"

Novice examination requests have been very variable, with some instructors reporting getting exams back in under three weeks and others finding delays of up to nine weeks discouraging their students. This area is receiving current attention, John Johnston reports--part of the problem is an increase in mail order exam requests from 800 to 4000 per month since early thisyear!

ARRL ISN'T THE ONLY RADIO GROUP holding its convention in Colorado in mid-July. The fifth annual National Sideband Convention opens July 16 in Colorado Springs for three days and has a Kenwood 350 for the main door prize. Talk in is on 27.375!

TWO-LETTER CALLSIGN seekers can get a complete computer printout of all assigned 1x2 calls for their district from the Callbook. Each area's printout is $6 postpaid--don't forget to specify which one you want--and periodic updating is planned. de HR REPORT.

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IMPORTANT, AN EMERGENCY!--If you see or hear on the air W4DDY, Oscar Wolfbrandt, please have him contact home at once! He is enroute to SA, Denver, Las Vegas, etc.

NEWS, AND VIEWS, FROM THE ARRL WEST GULF DIVISION DIRECTOR

As we go to press, a fone call to George Hart, W1NJM, Communications Department Manager, ARRL, informs us the result of SCM election in North Texas was as follows:

Ted Heithecker, W5EJ	439
Gene Smith, W5GSN	248
Jim LaPorta, W5QGZ	184

We understand the incumbent, Gene Harrison, W5LR, was nominated, but withdrew prior to balloting. Thus, Ted Heithecker, W5EJ,will become Section Communications Manager for North Texas Section.

Ted is an extremely able person. We feel he will perform the duties of SCM in his usual efficient manner. We ask all Amateurs in North Texas to give Ted the utmost cooperation. The position of SCM is another of those necessary League volunteer offices which require a tremendous amount of time and effort. The job cannot be effectively done without a constant flow of information from the membership to the SCM office.

To retiring SCM Harrison goes our thanks and appreciation for his years of service. Also, our thanks to Gene Smith and Jim LaPorta for offering to serve.

MATTERS OF MOMENT

A reminder - ARRL President HARRY DANNALS, W2TUK, will attend the Texas VHF-FM Society Convention in Austin, Texas, August 6,7,8. We recommend all Amateurs take advantage of the opportunity to meet the person who has so much influence in shaping the course of Amateur radio during these hazardous days.

Lou McCoy's proposal to establish a nation-wide frequency coordination system 'mit clout' for dissenters, may, or may not be the answer we need. Certainly the majority of repeater owners, with established squatters rights, are likely to favor it. Others may not be so enthusiastic, particularly non-repeater people, whose opinion incidentally, has not been requested (in the survey). Methinks we are about to use a sledge hammer to kill a fly! Naturally regulation conscious bureaucrats are likely to be in favor, but really, are we in favor of having some remote character, unfamiliar with our local problems, telling us which specific frequency we must use?

Looks like the White House is again pressuring FCC to give our 220 Mhz band (or a large portion of it) to CB'ers, most of whom would prefer to remain right where they are (with additional channels).

Have you ever considered a long cross-country trip with a 6-meter FM rig in the car? Don't try it, unless you are in possession of a fist full of xtals. We're badly in need of an orderly plan for 6FM; or better still a 35/50 watt output 6FM synthesized, or VFO rig similar to the Yaesu 221 or the Kenwood TS-700 now available for two meters.

73, ROY L. ALBRIGHT, W5EYB, Director.

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